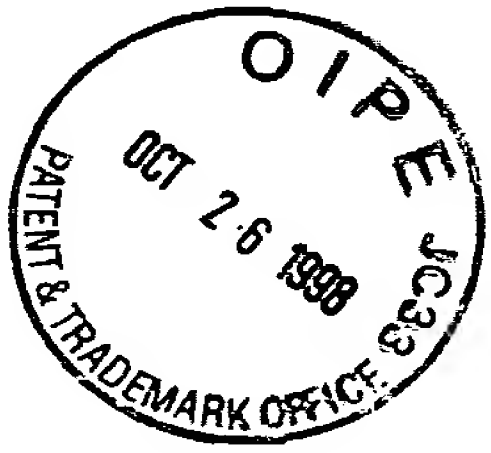


PATENTS
ALT-155



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Applicants : Tony K. Ngai et al.
Application No.: 09/124,649
Filed : July 29, 1998
For : PROGRAMMABLE LOGIC DEVICE HAVING
EMBEDDED DUAL-PORT RANDOM ACCESS MEMORY
CONFIGURABLE AS SINGLE-PORT MEMORY
Group Art Unit : 2751
Assignee : Altera Corporation

POWER OF ATTORNEY BY ASSIGNEE

Under the provisions of 37 C.F.R. § 3.71, the undersigned assignee of record, by virtue of an assignment submitted concurrently herewith for recording, of the entire interest in the above-identified patent application, hereby elects to conduct the prosecution of the above-identified patent application to the exclusion of the inventors. The assignee hereby revokes any powers of attorney previously granted and appoints James W. Rose, Reg. No. 34,239, Robert R. Jackson, Reg. No. 26,183, and Jeffrey H. Ingerman, Reg. No. 31,069, its attorneys, with power of substitution, and with power of appointment of associate attorneys, and of revocation of their powers, to prosecute this application and any divisions, continuations in whole or in part, renewals and reissues of the same, and to transact all business in the Patent and Trademark Office connected therewith;

and assignee requests that communications be sent to:

Jeffrey H. Ingerman
Fish & Neave
1251 Avenue of the Americas
New York, New York 10020-1104

and that telephone calls be directed to:

Jeffrey H. Ingerman
(212) 596-9000.

Pursuant to 37 C.F.R. § 3.73(b), the undersigned hereby certifies that the evidentiary documents have been reviewed and, to the best of the undersigned's knowledge and belief, title is in assignee.

The undersigned hereby declares that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

ALTERA CORPORATION
ASSIGNEE

10/23/98
Date

By:

C. Wendell Bergere
C. Wendell Bergere
Vice President, General
Counsel and Secretary

A S S I G N M E N T

WHEREAS, we, Tony K. Ngai, Rakesh H. Patel, Srinivas T. Reddy, and Richard G. Cliff, residing, respectively, at 2830 Gazelle Drive, Campbell, California 95008, 20087 Las Ondas Court, Cupertino, California 95104, 2289 Camellia Court, Fremont, California 94539, and 194 Smithwood Street, Milpitas, California 95035, have made an invention in:

PROGRAMMABLE LOGIC DEVICE HAVING
EMBEDDED DUAL-PORT RANDOM ACCESS MEMORY
CONFIGURABLE AS SINGLE-PORT MEMORY

and have made application for United States Letters Patent therefor, the same having being filed in the United States Patent and Trademark Office on July 29, 1998 as United States Patent Application No. 09/124,649, and having been executed by us on even date or dates herewith; and

WHEREAS, ALTERA CORPORATION, a corporation organized and existing under the laws of Delaware and having an office and place of business at 101 Innovation Drive, San Jose, California 95134-1941 is desirous of acquiring the entire interest in said invention, said United States patent application and in any Letters Patent which may issue thereon;

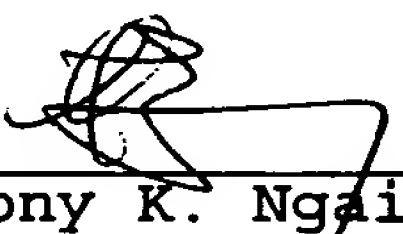
NOW, THEREFORE, be it known that for and in consideration of the sum of One Dollar (\$1.00) to each of us paid, and other good and valuable consideration, the receipt of sufficiency of which is hereby acknowledged, we do hereby sell, assign and transfer unto the said ALTERA CORPORATION, its successors, assigns and legal representatives, all right, title and interest in and to said invention and any improvements thereon for all countries of the world, and in and to said United States patent application, including any continuations and divisions thereof, and any substitute applications therefor, and including the right to claim

priority under the International Convention based on said patent application, and any patent which may issue thereon, and any reissues of the same; and all right, title and interest in and to every patent application filed or to be filed on said invention in any other country, including renewals, revivals, continuations and divisions thereof, and any substitute applications therefor, and any and all patents which may issue thereon, and any reissues and extensions of the same; and we hereby authorize and request competent authorities to grant and issue any and all patents on said invention to the said ALTERA CORPORATION, as the assignee of the entire interest therein; and we further agree to execute upon request of the assignee such additional documents, if any, as are necessary and proper to secure patent protection on said invention throughout all countries of the world, and to otherwise give full effect to and perfect the rights of the assignee under this Assignment.

IN TESTIMONY WHEREOF, we have hereunto signed our names and affixed our seals on the date(s) indicated hereinafter.

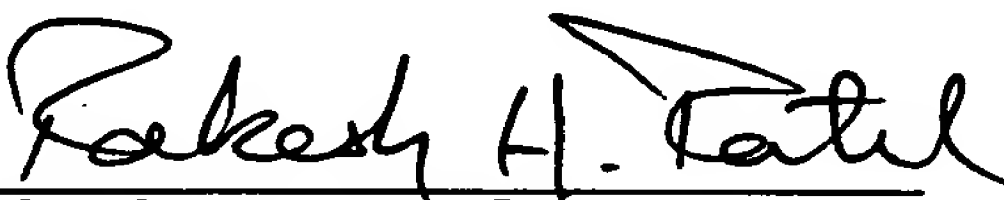
10/9/98

Date


Tony K. Ngai

10-9-98

Date


Rakesh H. Patel

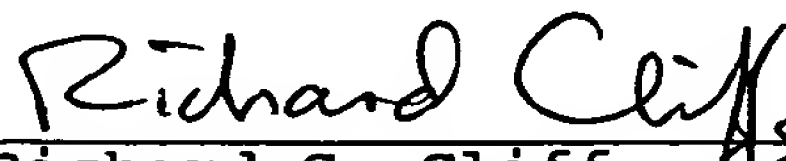
10-9-98

Date


Srinivas T. Reddy

10/10/98

Date


Richard G. Cliff